

## SPORTS PRACTICE DEVICE

### TECHNICAL FIELD

The present invention relates to a device that allows a user to practice a ball sport, such as tennis or soccer, by themselves.

- 5 More particularly, the present invention relates to a device that holds a ball in a confined or restricted manner and allows the user to practice repetitive ball striking or stroking drills or exercises, without the need for either another person or the need for a court or field within which to carry out the drills.
- 10 Furthermore, the present invention relates to a device that provides the user with a more accurate return of the ball to its original starting point, which thus increases the benefit to the user.

### BACKGROUND ART

- 15 Traditionally, in order to practice/play in games such as tennis, it has been a requirement that at least two people practice together, hitting a ball over a net of a court as per the normal manner.

Normally, during such practice, the aim is to develop fluid and precise strokes so that during competition the player will be better prepared.

- 20 However, it is not always possible for people to play together for reasons such as time commitments and so forth, and indeed if the players are not of the same standard then one of the players may need more individual practice to increase their level of play to a suitable standard.

- 25 Furthermore, referring to the traditional practice situation as described above, this requires the use of a tennis court, which many people do not have regular access to. There may also be other restrictions to accessing a court, for example bad weather, in which the courts become unavailable for use. This then becomes a big disadvantage to the person trying to improve their technique.

There have been many efforts to produce devices that allow an individual to practice the various forms of strokes or strikes that facilitate the user to become more proficient in a particular sport.

### DISCLOSURE OF THE INVENTION

- 5 In the field of tennis for example, there are numerous devices that attempt to provide the user with a form of improved practice device.

Perhaps the most common of such devices is that where a ball is secured to a cord, the cord usually being made from an elastic material, such as a bungee cord. The ball is usually secured to the cord by piercing the ball at  
10 two opposite ends and feeding some of the cord through both of the holes and tying a knot on the loose end of the cord. The other free end of the cord is then attached to a heavy object located on the ground. The user then holds the ball in one hand, then strikes the ball with their racket, sending the ball away from their current position.

- 15 However, as the ball proceeds to travel away from the user in a forward motion, the cord becomes stretched to such a point that it eventually directs the ball into the ground and the combined forces of the ball impacting the ground and the elastic cord pulling on the ball, send the ball back in the general direction of the user.

- 20 However, the set up of such devices inevitably leads to the ball not being returned to the user in a playable manner, that is the ball returns to a very different position relative to its starting position. This then can lead to instances where the timing between strokes is either sporadic or, if at very different return positions, can lead to inconsistencies in stroke practice.

- 25 As such, devices and apparatus's similar to those mentioned above are not reliably accurate or precise in relation to the true flight of a tennis ball during play. The consequences then are that these types of devices mentioned above have not been commercially viable or successful.

- 30 Another solution, with respect to training for tennis, has been to provide a tennis ball attached to a non-elastic cord, the cord then being attached to a pole by a pivot. The arrangement is such that the ball can only be hit in a

circular motion so that effectively a player will be practicing first of all a forehand stroke, followed almost immediately by a backhand stroke. Such a set up is not advantageous to the practicing of tennis due to the rapid change from forehand to backhand when the player may indeed just want  
5 to be practicing or intend to be practicing, their forehand only.

This type of set up ultimately leads to confusion in terms of ball striking, positioning and so forth.

Whilst the above devices are relating portable and inexpensive, they still have a number of shortcomings in relation to providing a return trajectory for  
10 the ball that is regular and is not erratic such that it upsets the fluid motion of such drills as mentioned previously.

It is an object of the present invention to overcome or at least substantially overcome the problems identified in the prior art. It is yet a further object of the present invention to provide a sports practicing device that is capable of  
15 simulating the rapid mid dash air flight of a ball, and more particularly, a tennis ball, such that the sports practicing device can be used in a relatively confined area.

Another object of the invention is to provide a sports practicing device that is able to return the ball, and particularly a tennis ball, to the player to  
20 approximately the same location after each hit or stroke so as to allow the player to practice repetitive strokes without the need to substantially alter their position.

Other aspects and advantages of the present invention will become apparent from the following description, taken in connection with the  
25 accompanying drawings, wherein by way of illustration and example the embodiment of the present invention is disclosed.

According to the present invention there is provided a sports practicing device having at least two elastic cords, a ball with at least two means for receiving the at least two elastic cords, the ball being located substantially  
30 equal in distance along the length of each of the at least two elastic cords wherein each of the at least two elastic cords are brought into touching engagement with themselves and secured by securing means at the point

of touching engagement so as to form a "Y" shape, and each end of the at least two elastic cords is adapted to be secured to vertically spaced anchoring means secured to two vertical supports.

Preferably, the receiving means are located on opposite sides of the ball.

- 5 Preferably, the receiving means are located on the periphery of the ball.

Preferably, the elastic cords have anchoring means positioned at each end.

Preferably, the securing means is provided by tape wound around the point of touching engagement of the elastic cords.

- 10 Preferably, each point of touching engagement of the elastic cords is between 20 centimeters and 120 centimeters from the ball.

Preferably, the distance of the point of touching engagement is between 60 and 80 centimeters from the ball.

Preferably, the distance between the point of touching engagement and the ball is 70 centimeters.

- 15 Preferably, the 2 vertical posts are positioned approximately five to six meters apart from each other.

Preferably, the height of the ball is determined by the user.

Preferably, the elastic cords are manufactured from bungee cord material.

- 20 Preferably, the anchoring means is provided by a clip positioned on a swivel joint attached to each end of the elastic cords.

Preferably, the ball is a standard tennis ball.

In a further embodiment, the "Y" shape is achieved by using a number of separate sections of elastic cord.

#### BRIEF DESCRIPTION OF THE DRAWINGS

By way of illustration only, an embodiment of the invention is described more fully hereinafter with reference to the accompanying drawings in which:

Figure 1 is a front view of the sports practicing device according to a preferred embodiment of the invention,

Figure 2 is an enlarged view of the circled region in Fig 1,

Figure 3 is a front view of the device in Figure 1 attached to supports.

#### BEST MODE FOR CARRYING OUT THE INVENTION

The apparatus 10 of Figure 1 has a ball 12 with loops of a resilient material 14 connected in a secure manner. The loops of resilient material can be readily manufactured from known materials that are pliable to an extent yet hard wearing. As shown, the elastic cord 16 passes through the loop of resilient material 14 so that the ball 12 is located approximately half way along the length of elastic cord 16 at position 18.

The elastic cord 16 may be secured to 14 as shown at 18.

The elastic cord 16 is secured to itself at position 20, thus providing the "Y" shape. This then provides for sections of the elastic cord 22 and 24 respectively which are used to secure the device.

The method of securing the cord to itself may be achieved by wrapping a resilient material, such as a strong tape, around at position 20.

The distance between 18 and 20 has been found to be of some importance in that if the distance between position 18 and position 20 is greater than approximately 120 centimeters then the ball will return in a relatively erratic manner and take some time to return to approximately the same location that it had started at. This then results in loss of continuity of swing and an unrealistic feel to the user.

Conversely, if the distance between position 18 and position 20 is too small, less than 20 centimeters, then the sections 22 and 24 are more likely to be



struck by the user when swinging or striking at the ball. Furthermore, the close proximity of lengths 22 and 24 to the user can result in the user being distracted from the ball.

Each of the sections 22 and 24 have, located at the outermost end 30, 32, 34, 36 a secured means being capable of releasably securing to the elastic cord so as to be able to tether the elastic cords 16 to the vertical supports 52 and 54.

This particular arrangement as shown in figure 3, therefore allows this device to be set up between any two vertical posts 52 and 54. The optimal distance 56 between the two vertical posts is between 5 to 6 meters. Distances less than this will provide for a more rapid return of the ball, which may be appropriate given the nature of the practice required.

In use, the ends of the elastic cords 30 and 32, located on one side of the ball 12 of the sports practicing device 10, are attached by the user to one of the vertical supports, for example 52. The remaining ends of the elastic cord 34 and 36, for example, are then fastened to the other vertical support. In this way then the vertical supports can be provided by two trees in close proximity or even the supports of a pergola or carport.

The user can then adjust the height 17 of ball 12 by moving the ends 30, 32, 34, and 36, up or down on the vertical supports as required.

The fastening may be achieved by wrapping the ends of the elastic cords around the vertical supports, then fastening the cord back onto itself. Alternatively, there are many other ways of securing the cords, such as via clasps or by tying onto the vertical supports.

As such, the device as described in this particular embodiment is inexpensive to make, due to the use of the two single elastic cords and requires little additional equipment in order to set up the device in working operation.

It is clear that to those skilled in the art various modifications may be made in details of design and construction without departing from the scope and ambit of the invention, such as constructing the "Y" shape of the elastic cord

from a number of separate sections of elastic cord.

The examples given here are primarily for the purposes of illustration and the inventive concept is not to be construed as limiting to the specific features and details as described herein.

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